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## LEE COUNTY

### (Lee County Water Service Area Map)

- Estimated 1999 population of 7,900--75% on public water
- Estimated 2020 population of 8,200--84% on public water
- 165 miles of water lines, with plans for 50 additional miles
- Estimated funding needs for public water 2000-2005--\$2,441,000
- Estimated funding needs for public water 2006-2020--\$9,250,000

Lee County had an estimated population of 7,935 (3,306 households) in 1999 with a projected population of 8,200 (3,600 households) in 2020. About 3/4 of the residents of Lee County are provided with public water. In areas of the county not served by public water, about 2/3 of the households rely on private domestic wells and 1/3 of the households rely on other sources. About 320 households will be added to public water service through new line extensions in 2000-2020.

The City of Beattyville operates the only treatment plant in the county and they also sell water to the Southside Water Association in the southern portion of the county. A large percentage of Lee Countians have access to potable water and getting water to everyone feasible by the year 2020 should not be a problem. Water source and plant capacity should be sufficient to reach this goal. Current water expansion plans will also tie this system in with the Jackson County system in the southwestern part of the county.

### *Estimated Costs - Proposed Projects, 2000-2005*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	In \$1000	in \$1000	in \$1000	in \$1000	in \$1000
LEE								-
Beattyville	47.0	270	1,841				600	2,441
Total	47.0	270	1,841				600	2,441

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# WATER SERVICE AREAS

## LEE COUNTY

### Kentucky

*Prepared By:*  
**Water Resource Development Commission**

Department for Local Government  
1024 Capital Center Drive, Suite 340  
Frankfort, Kentucky 40601-8204  
502-573-2382 -- 502-573-2939 fax  
<http://dlgnt1.state.ky.us/wrdc/>

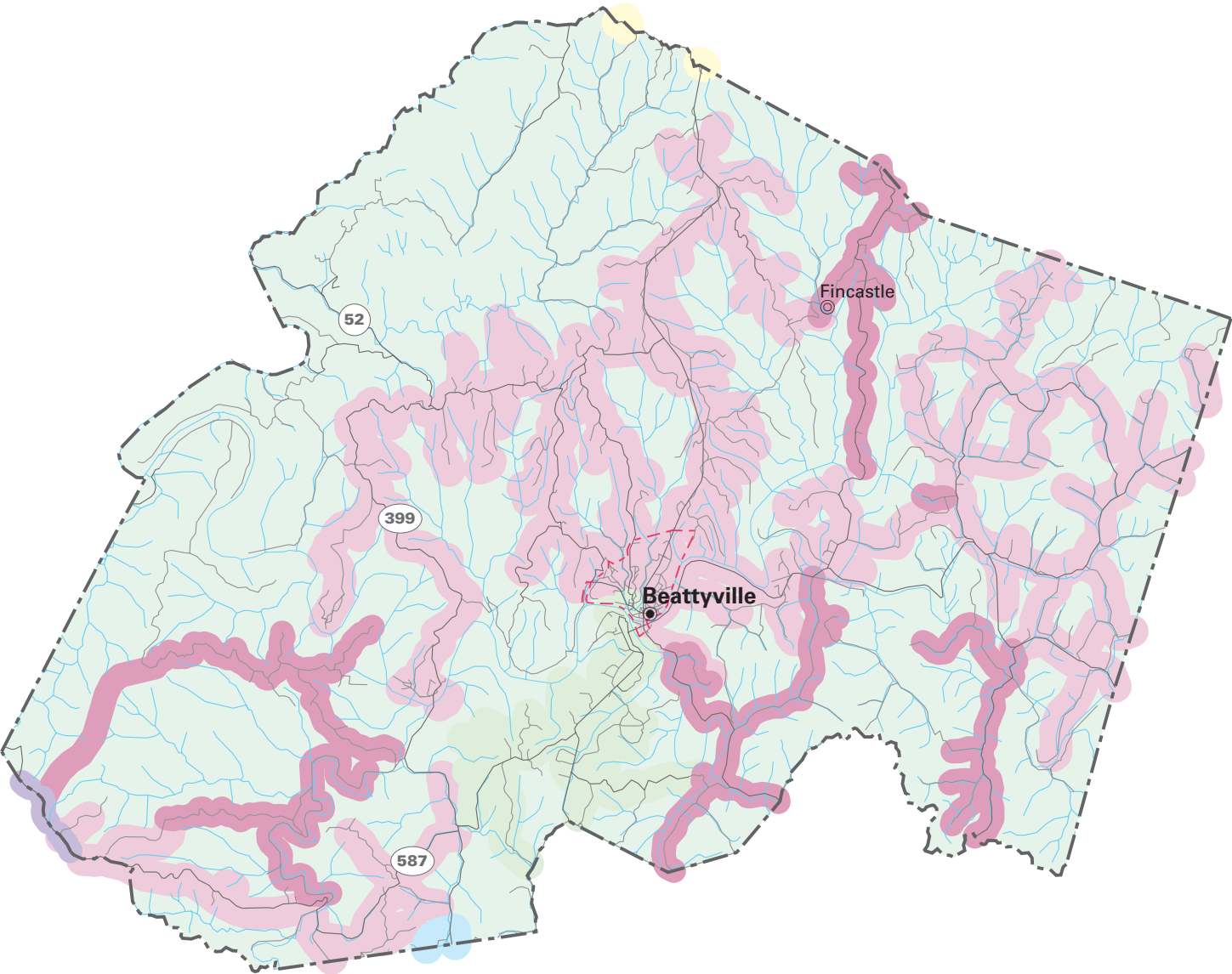
Bob Arnold, Chairman  
Lawrence Wetherby, Executive Director

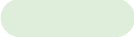



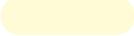

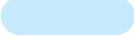



Final GIS & Cartographic Operations By:  
Kent Anness & Kim Prough

Data Collection & GIS Input By:  
Kentucky Area Development Districts



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WATER SERVICE STATUS BY OWNER		
EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		SOUTHSIDE WATER ASSOCIATION
		JACKSON COUNTY WATER ASSOCIATION
		CAMPTON WATER PLANT
		BOONEVILLE WATER AND SEWER
		BEATTYVILLE WATER WORKS



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**Estimated Costs - Proposed Projects, 2006-2020**

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
LEE								-
Beattyville	4.7	50	250		7,000	2,000		9,250
Total	4.7	50	250		7,000	2,000		9,250

**PUBLIC WATER SYSTEMS**

Lee County is served by 4 public and semi-public water systems: 1 municipal system, Beattyville Water Plant; 1 water association, Southside Water Association; 1 private community system; and 1 non-community system.

**BEATTYVILLE WATER WORKS**

PWSID: ..... 0650024  
 System Type: ..... COMMUNITY  
 Owner Type: ..... MUNICIPAL  
 Surface Source: ..... NORTH FORK KENTUCKY RIVER  
 Purchase Source:  
 Well Source:  
 Sells Water to: ..... SOUTHSIDE WATER ASSOCIATION  
 Treatment Plant Capacity (MGD): ..... 1.00  
 Percent Daily Average Production: ..... 52.00  
 Total Tank Storage Capacity (gallons): ..... 900,000.00  
 Total Service Connections: ..... 2,200.00  
 Number of Employees: ..... 10.00  
 Treatment Operator Class: ..... 2D  
 Distribution Operator Class: ..... 3A  
 Customer Rate for 1,000 Gallons: ..... 5.25  
 O/M costs 1997: ..... Not available  
 O/M costs per Service Connection: ..... Not available  
 Net Revenue 1997: ..... Not available  
 Total Water Produced 1997 (gallons): ..... Not available  
 Water Sold 1997 (gallons): ..... Not available  
 Unaccounted-for Water 1997 (%): ..... Not available

The Beattyville Water Plant gets its water from the North Fork of the Kentucky River. The system serves 1,730 households and also sells water to the Southside Water Association. In addition, Beattyville Water purchases 10,000 gpd from Jackson County. Plant capacity is 1 million gpd, with a daily average production of 600,000. Current storage capacity is 900,000 gallons. Rates are \$10.50 for the first 2000 gallons inside the city and \$14.00 outside. The System employs 10 full time people.

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### **SOUTHSIDE WATER ASSOCIATION**

PWSID: ..... 0650412  
System Type: ..... COMMUNITY  
Owner Type: ..... WATER ASSOCIATION  
Surface Source:  
Purchase Source: ..... BEATTYVILLE MASTER METER  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 0.00  
Total Tank Storage Capacity (gallons): ..... 120,000.00  
Total Service Connections: ..... 533.00  
Number of Employees: ..... 2.00  
Treatment Operator Class: ..... 1D  
Distribution Operator Class:  
Customer Rate for 1,000 Gallons: ..... 7.99  
O/M costs 1997: ..... 136,079.00  
O/M costs per Service Connection: ..... 257.24  
Net Revenue 1997: ..... 21,762.00  
Total Water Produced 1997 (gallons): ..... 0.00  
Water Sold 1997 (gallons): ..... 23,309.00  
Unaccounted-for Water 1997 (%): ..... 6.87

The Southside Water Association purchases about 73,000 gpd from the Beattyville Water Plant and they serve 525 households. They have a storage capacity of 100,000 gallons. There are currently no plans for expansion.

### **OTHER SYSTEMS**

#### **FARMERS RIDGE WATER DISTRICT**

Farmers Ridge Water District is located in Lee County. The system serves a population of 200 and has 60 service connections. The district purchases water from Jackson County Water Co.

#### **CATHEDRAL DOMAINE CAMP**

Cathedral Domaine Camp is located in Lee County. The system serves a population of 300 and has 1 service connection. The private, transient, non-community system has treatment capacity of 6,500 gallons per day. The water source is springs.

### **PRIVATE DOMESTIC SYSTEMS**

Almost 2,000 people in Lee County rely on private domestic water supplies: 1,300 on wells and 700 on other sources.

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Throughout most of Lee county wells drilled in valley bottoms are adequate for domestic use. Yields to wells become progressively less on hillsides and ridges. Some wells drilled on ridges produce enough water for domestic use. Generally wells on broad ridges produce more water than wells on narrow ridges or hilltops.

Most wells drilled in the valley bottoms are completed in limestone, produce hard water often with noticeable amounts of iron. On hillsides and ridges wells are often completed in sandstone, contain soft to moderately hard water with noticeable amounts of iron. Salty water may be found at depths greater than 100 feet below the level of the Kentucky River.

A few springs supply sufficient quantities of water for domestic use. Most springs yield less than 5gpm except limestone springs that occur near stream level often produce 100 gpm or greater.

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